

BOARD OF SUPERVISORS

Brown County



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LAND CONSERVATION SUBCOMMITTEE

Norbert Dantinne, Chair; Dave Kaster, Vice Chair
Steve Deslauriers, Bernie Erickson, Alex Tran
Citizen Rep: Stan Kaczmarek

LAND CONSERVATION SUBCOMMITTEE

MONDAY, DECEMBER 16, 2019

6:00PM

**Room 200, Northern Building
305 E. Walnut St., Green Bay, WI**

**NOTICE IS HEREBY GIVEN THAT THE COMMITTEE MAY TAKE ACTION ON
ANY ITEMS LISTED ON THE AGENDA**

**** NOTE DATE, TIME & LOCATION****

- I. Call Meeting to Order.
- II. Approve/Modify Agenda.
- III. Approve/Modify Minutes of October 21, 2019.

Comments from the Public

Land and Water Conservation

1. Budget Status Financial Report for September and October 2019 – Unaudited.
2. Lake Michigan Area Land and Water Conservation Association Board of Directors Annual Planning and Budget Meeting, January 10, 2020.
3. 2020 WI Land & Water Conference, March 4th – March 6th, 2020 – KI Convention Center
4. Director's Report.
 - a. Overview of Producer Focused Conservation Survey Data.

Other

5. Such Other Matters as Authorized by Law.
6. Adjourn.

Norb Dantinne, Jr., Chair

Notice is hereby given that action by the Committee may be taken on any of the items which are described or listed in this agenda.

Please take notice that it is possible additional members of the Board of Supervisors may attend this meeting, resulting in a majority or quorum of the Board of Supervisors. This may constitute a meeting of the Board of Supervisors for purposes of discussion and information gathering relative to this agenda.

**PROCEEDINGS OF THE BROWN COUNTY
LAND CONSERVATION SUBCOMMITTEE**

Pursuant to Section 18.94 Wis. Stats., a regular and budget meeting of the Brown County Land Conservation Subcommittee was held on Monday, October 21, 2019 at the Brown County STEM Innovation Center, 2019 Technology Way, Green Bay, WI

Present: Chair Norb Dantine, Supervisor Steve Deslauriers, Supervisor Alex Tran, Supervisor Bernie Erickson, Supervisor Dave Kaster, Citizen Member Stan Kaczmarek

Also Present: County Conservationist Mike Mushinski, Rama Zenz

I. Call Meeting to Order.

The meeting was called to order by Chair Dantine at 6:00 p.m.

II. Approve/Modify Agenda.

Motion made by Stan Kaczmarek, seconded by Supervisor Kaster to approve. Vote Taken. **MOTION CARRIED UNANIMOUSLY.**

III. Approve/Modify Minutes of September 23, 2019.

Motion made by Supervisor Kaster, seconded by Supervisor Deslauriers to approve. Vote Taken. **MOTION CARRIED UNANIMOUSLY.**

****BUDGET REVIEW****

Comments from the Public on Budget Items None.

REVIEW OF 2020 DEPARTMENT BUDGET

1. Land and Water Conservation – Review of 2020 department budget.

a. Resolution Approving New or Deleted Positions During the 2020 Budget Process in the Land and Water Conservation Department – Table of Organization.

County Conservationist Mike Mushinski informed they removed from their Table of Organization the Agronomist Technician position that was unfilled because of funding. They removed the LTE-Intern /West Shore position and added an LTE- (student) Intern position with additional hours to do demo farm work, work on state performance standards and the Pike Project.

Stan Kaczmarek questioned with the expansion of the demo farms going across the river, will they have enough staff? Mushinski noted they were adding to the budget book another full Agronomist position.

Referring to the agenda packet material, Mushinski spoke to their 2020 Initiatives. Technician Rama Zenz briefly went over revenues and expenses.

Motion made by Stan Kaczmarek, seconded by Supervisor Kaster to approve the resolution. Vote Taken. **MOTION CARRIED UNANIMOUSLY.**

Motion made by Supervisor Erickson, seconded by Supervisor Deslauriers to move the budget as presented to County Board. Vote Taken. **MOTION CARRIED UNANIMOUSLY.**

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NON-BUDGET ITEMS (None)

Other

2. **Such Other Matters as Authorized by Law.**

3. **Adjourn.**

Motion made by Stan, seconded by Supervisor Deslauriers to adjourn at 6:13 pm. Vote taken. MOTION CARRIED UNANIMOUSLY.

Respectfully submitted,

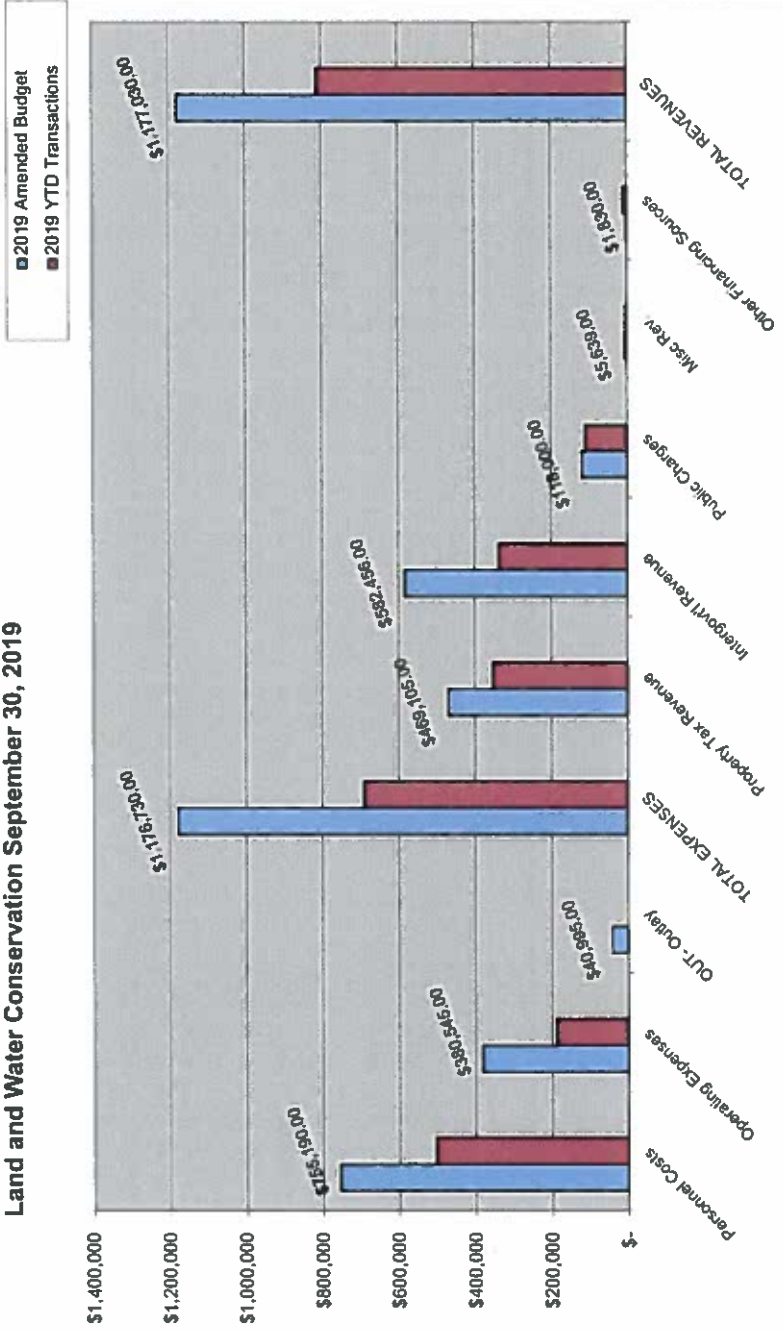
Alicia A. Loehlein
Administrative Coordinator

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**Brown County Land & Water Conservation
Budget Status Report (unaudited)
September 30, 2019**

	<u>2019 Amended Budget</u>	<u>2019 YTD Transactions</u>	<u>2018 Amended Budget</u>	<u>2018 YTD Transactions</u>
Personnel Costs	\$755,190.00	\$503,113.02	\$750,559.00	\$441,606.36
Operating Expenses	\$380,545.00	\$188,014.90	\$446,278.00	\$221,736.19
OUT- Outlay	\$40,995.00	\$0.00	\$25,894.00	\$0.00
TOTAL EXPENSES	\$1,176,730.00	\$691,127.92	\$1,222,731.00	\$663,342.55
Property Tax Revenue	\$469,105.00	\$351,828.72	\$457,179.00	\$342,884.25
Intergov't Revenue	\$582,456.00	\$336,319.40	\$631,106.00	\$368,827.39
Public Charges	\$118,000.00	\$108,946.92	\$124,421.00	\$114,399.07
Misc Rev.	\$5,639.00	\$4,530.00	\$0.00	\$346.12
Other Financing Sources	\$1,830.00	\$9,969.00	\$10,025.00	\$8,011.00
TOTAL REVENUES	\$1,177,030.00	\$811,594.04	\$1,222,731.00	\$834,467.83

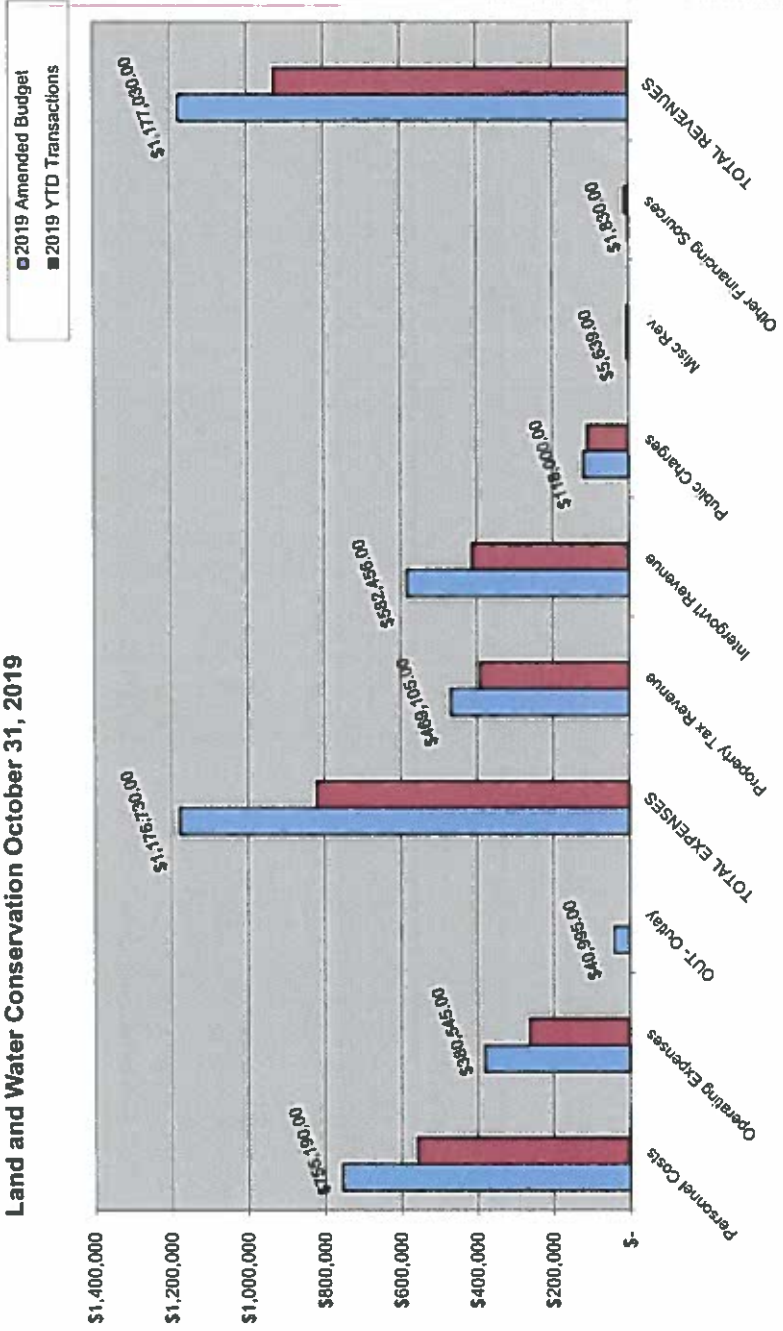
Land and Water Conservation September 30, 2019



**Brown County Land & Water Conservation
Budget Status Report (unaudited)
October 31, 2019**

	<u>2019 Amended Budget</u>	<u>2019 YTD Transactions</u>	<u>2018 Amended Budget</u>	<u>2018 YTD Transactions</u>
Personnel Costs	\$755,190.00	\$557,508.14	\$750,559.00	\$548,226.23
Operating Expenses	\$380,545.00	\$262,748.90	\$446,278.00	\$248,986.69
OUT - Outlay	\$40,995.00	\$0.00	\$25,894.00	-\$5,075.01
TOTAL EXPENSES	\$1,176,730.00	\$820,257.04	\$1,222,731.00	\$792,137.91
Property Tax Revenue	\$469,105.00	\$390,920.80	\$457,179.00	\$380,982.50
Intergov't Revenue	\$582,456.00	\$412,445.85	\$631,106.00	\$402,095.63
Public Charges	\$118,000.00	\$108,717.35	\$124,421.00	\$114,427.07
Misc Rev.	\$5,639.00	\$5,136.65	\$0.00	\$346.12
Other Financing Sources	\$1,830.00	\$9,969.00	\$10,025.00	\$8,011.00
TOTAL REVENUES	\$1,177,030.00	\$927,189.65	\$1,222,731.00	\$905,862.32

Land and Water Conservation October 31, 2019





LAKE Michigan Area Land & Water Conservation Association

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Board of Directors Annual Planning and Budget Meeting Brown County STEM Innovation Center 2019 Technology Way Green Bay, WI January 10th, 2020

1. 9:30 a.m. – 10:00 a.m. Brown County Facility Tour
2. 10:00 a.m. Call to Order – President Greg Cleereman
3. Roll Call
4. Approval of Agenda
5. Approval of Previous BOD Minutes: October 11th, 2019 Kewaunee County
6. Treasurer's Report
7. WLWCA Reports: Board of Directors Representatives, Committee Reports
8. 2020 Activity Schedule
9. 2020 Annual Budget
 - a. Review 2019 Budget and Actuals
 - b. 2020 Budget Preparation/Adoption
10. Resolutions
11. Agency Updates/Reports
12. County Roundtable
13. Adjourn

2020 WI Land+Water Conference Breakout Sessions

Continuing Education Credits (CEUs) will be noted once approved

Wednesday, March 4, 1:45-2:45pm

What Follows the Year of Clean Drinking Water? Governor Evers declared 2019 the "Year of Clean Drinking Water," yet the issue remains a priority this year, and going forward. Hear from bipartisan legislative and policy experts on how they see the clean drinking water issue playing out in Wisconsin in the coming years.

The Ecological Landscapes of Wisconsin is a publication developed by the Department of Natural Resources to provide the best available information to allow managers to practice landscape-scale management. Learn how this publication offers the framework for ecosystem management, assesses the ecological, social and economic conditions of the state and each ecological landscape, and offers tools to aid in management decisions at the landscape level. *Presenter: Andy Stoltman, WDNR.*

Harvest More Buck\$ and Birds with Precision Agriculture Technology. Precision agriculture technology is revolutionizing how farmers plan, implement, and evaluate their operations. Pheasants Forever and Quail Forever have been working since 2015 to help farmers and their advisers interpret their precision ag data and implement solutions to simultaneously improve their bottom line and enhance wildlife habitat, soil health and water quality. This presentation will strive to shift a perception that profitability and conservation are competitive. *Presenters: Scott Stipetich, Senior WI Farm Bill Biologist, Pheasants Forever and Quail Forever, and Marty Moses, WI State Coordinator, Pheasants Forever.*

How healthy are waters in my county? *Katie Hein, WDNR,* will discuss how counties can utilize existing data and/or set up new monitoring efforts to answer questions about the health of our waters, how they are changing, and how we can pair monitoring with action to protect or restore waters throughout the state.

Got water? Increases in precipitation, human health effects, and tools to assist in your work. How do increases in frequency and severity of precipitation events affect human health and what tools and resources are available for you to better address this issue? The Climate and Health Program from the Wisconsin Dept. of Health Services has been spending the past several years learning about the human health effects of climate change in Wisconsin, including the effects of flooding events. They've created a set of tools, with a focus on human health, to help Wisconsinites better prepare for and respond to these extreme precipitation events. We will also discuss how these precipitation changes could impact public health with a focus on groundwater contamination and harmful algal blooms. *Presenters: Colleen Moran MPH, MS, Climate and Health Program Manager, and Sarah Yang, PhD, Groundwater Toxicologist, WI Dept. of Health Services.*

Wednesday, March 4, 3:15-4:15pm

Groundwater Quality in Wisconsin: How the geologic framework, rock chemistry, and land use affects water quality in Wisconsin's aquifer systems. Geared towards the geology novices, *Dr. John A. Luczaj, Professor of Geoscience and Water Science at UW-Green Bay,* will present an overview of Wisconsin's groundwater quality, with a focus on how the geology, aquifer chemistry, and land use variations influence the chemistry of water produced from the state's wells. Wisconsin has plentiful water resources, but variations in the geologic framework of aquifers, coupled with natural contaminants (arsenic, radium, strontium) and anthropogenic contaminants (bacteria, nitrates, etc.) make it necessary to consider all of these issues when evaluating groundwater quality.

Planning Steps to Ensure Successful Pollinator Plantings. The adage "If you fail to plan you plan to fail" is an unfortunate truth many have experienced when trying to establish a pollinator planting. This session will discuss the critical planning considerations needed to ensure success. Topics covered include: scouting and site preparation, selecting the right planting method for the site, pollinator friendly herbicides, cover and companion crops, matching seed mixes to soil type and target species, and maintenance activities. *Presenter: Steve Bertjens, NRCS State Biologist.*

Let's Make Healthy Lakes – and Rivers - Together! The WDNR's Healthy Waters Coordinator, *Pamela Toshner*, will share an overview of the state's Healthy Lakes initiative, including the 5 best practices promoted, technical assistance, and funding opportunities. *Catherine Higley, Vilas County*, will delve into logistics of setting up a countywide effort and showcase example projects. Forthcoming program improvements and making it easier to increase funding will also be discussed.

News You Can Use: The Wisconsin Farm Center, a service of the WI Dept. of Agriculture, Trade and Consumer Protection, serves the state's farmers and agribusinesses in sustaining and growing Wisconsin's agricultural economy. Financial consultations, assistance with farm succession planning, and mediation services are just a few of the services provided at no cost to those requesting assistance. *Presenter: Mike Lochner, DATCP.*

Locally Led Climate Change Initiatives. Hear from two counties taking the initiative on climate change in Wisconsin. *Bob Micheel* will share how Monroe County not only passed a proactive resolution recognizing climate change while supporting the efforts of the newly created Climate Change Task Force. The task force will seek federal, state, and local assistance (technical & financial) to implement their 10 goals. Then hear from *MaryJo Gingras* about Ashland County's recently approved Land and Water Resource Management Plan, which includes 25% of their workplan activities as Climate Change Adaptation Approaches and Strategies as developed by the Northern Institute of Applied Climate Science, and how they are keeping their staff, LCC, and partners up to speed in their region.

Thursday, March 5, 8:00-9:15am

Technical Roundtable #1: Gully Erosion Techniques: New and old ways to address gully erosion. Hosted discussion on using various technical practices to address gully erosion control, including turf reinforcement lined chutes, "cascading waterfalls," and other tried and true methods. *Hosts: Pete Wurzer, Drew Zelle-Environmental Specialist, DATCP.*
Civilian Conservation Corps Structures: Appreciating and repairing old CCC structures for gully control. These structures have been around a long time and provide us an opportunity to look at and learn from methods used to control erosion in the past. *Hosts: Ryan Glassmaker, Pete Wurzer-Environmental Specialists, DATCP.* **1 Engineering Professional Development Hour.**

Like Han Solo and Chewbacca - Taking your Partnership to Light Speed. This popular breakout session is back and better than ever! Successfully navigating a conservation department through the asteroid field of today's funding shortfalls and resource concerns requires respect, collaboration, and communication (even when you speak different languages). Hear lessons learned from experienced and savvy "pilots" in this stellar session on strengthening the LCC/LCD partnership. *Presenters/Panel TBA.*

Tech Bytes 2020. Technology and its use in conservation is ever changing. *Seth Ebel (Dane County) and Jeremy Freund (Outagamie County)* will drop bytes of information to generate ideas and opportunities for others to adopt in applying technology to conservation. The presentation will touch on the latest adaptations of Civil 3d, LiDAR, Drones, and GIS in helping implementation of conservation.

Nutrient Management: More than balancing N, P, and K. This session will explore the tools available to achieve more from nutrient management planning than balancing N, P, and K for crop production. We'll look at identifying soil health through a soil test, meeting soil loss requirements, and vegetating channels, as well as identify expectations of the NRCS 590 standard and NR151. Most importantly, it's to develop a plan that can be used by the farmer so it can be implemented to protect and improve water quality and farm profitability. The session is intended to be interactive, so come prepared to engage in a discussion about taking nutrient management planning to the next level. *Presenters: Dale Konkol, Door Co. SWCD, and Kirk Langfoss, Marathon Co. CPZ.*

Nitrate Leaching. Join *Kevin Masarik, UW-Stevens Point Groundwater Education Specialist*, who will discuss seasonal variability of nitrate leaching to groundwater, monitoring efforts in the central sands, and how to calculate nitrate loss.

Thursday, March 5, 9:45-11:00am

Technical Roundtable #2: Perplexing Projects: Examples of successful projects that addressed significant erosion or runoff concerns. How to think out of the “box” when using technical solutions to address resource concerns. *Presenters: Ryan Glassmaker, DATCP-Innovative methods for controlling stormwater control for lake protection; Pat Schultz, P.E., DATCP-Repairing a large single storm event gully in Chippewa County; Chad Casper, Winnebago County LWCD-Offshore breakwater structures; Dan O’Connell, Portage County LWCD-Little Plover River Project.*
What to do when things go wrong: How to “keep calm and carry on” when unplanned issues arise during installation of conservation projects. How to problem solve your way through technical concerns that arise during construction projects. *Presenters: Amy Moore, P.E., NRCS; Pat Schultz, P.E., DATCP; Travis Buckley, DATCP.*
1 Engineering Professional Development Hour.

What Wikipedia Can’t Tell You About Crop & Tillage Surveys. Do you have years of crop and tillage survey data sitting on the shelf collecting dust? Do you think that data could be useful somehow but don’t know where to start? Do you wonder if there are better ways to collect cropping trend data? New to the tillage survey world and don’t know where to start? If you stay up at night pondering these questions and more, this presentation and discussion will go through 25+ years of crop and tillage survey data. Dane County has collected data annually since 1994. Recently, the county paired up with Dr. Francisco Arriaga and his graduate student to determine how the data could be used, trend analysis, and what the next evolution of the crop and tillage survey could look like. *Presenters: Curt Diehl, Dane County LWCD; Dr. Francisco Arriaga, Associate Professor, Dept. of Soil Science, UW-Madison; and Kyle Kettner, Graduate Student, Dept. of Soil Science, UW-Madison.*

Teaching Outdoor Awareness & Discovery: T.O.A.D. Programs - Bringing Environmental Education programs to people of all ages throughout Marinette County. Marinette County’s Land & Water Conservation Division uses the T.O.A.D. (Teaching Outdoor Awareness & Discovery) program to teach year-round environmental education topics throughout the county to a variety of audiences. They’ve reached over 92,000 people since 2001, a majority of which are schoolchildren. This presentation introduces T.O.A.D. and how they use a hands-on approach to teach others about conservation, and why they should care about the environment and our natural resources.

PFAS in the environment, Wisconsin’s strategy for an emerging concern. Per- and polyfluoroalkyl substances (PFAS) are a group of human-made organic chemicals that have been used in industry and consumer products worldwide since the 1950s. PFAS are highly resistant to degradation, distributed worldwide, and have documented toxicity to animals and links to adverse health effects in humans. DNR will introduce PFAS and their uses, why they are an issue in the environment, and what Wisconsin is doing about PFAS. DNR staff will talk about implications of PFAS in wastewater, biosolids/land-spreading, development of a new water quality standard, potential fish consumption advisories and the results of a 2019 survey of PFAS compounds in surface water and fish tissue. The presentation will compare Wisconsin’s efforts with those with other states, as well as federal-level progress on regulating and controlling PFAS contamination. *Presenters: Adrian Stocks, Tim Asplund, Mike Shupryt, Meghan Williams (DNR) and Sarah Yang (DHS).*

Agency Partnerships for Improving NR 151 Implementation. Re-designed in 2002, our statewide nonpoint source pollution abatement program relies on multiple agencies to successfully implement the agricultural performance standards. As we strive to always improve the implementation process, we should also tell the story of all the great work we’ve done to protect water quality. This interactive session will look at the background of NR 151, share examples of successful implementation, and discuss areas for improvement. *Presenters: Mike Gilbertson, WDNR and county staff TBA.*

Thursday, March 5, 1:15-2:30pm

Technical Roundtable #3: Stream Corridor Improvements: This discussion will revolve around combining good stream bank protection and good habitat practices into creating a healthy stream corridor. *Presenters: Stacy Dehne, P.E., DATCP; Dave Russell, P.E., DATCP; Matt Albrecht-Vernon County LWCD.*
1 Engineering Professional Development Hour.

Using SnapPlus for Conservation. Find out how to build a conservation plan in the latest version of SnapPlus. Learn to make field and conservation practice maps; account for animals and their manure; track manure storage volume; build crop rotations with nutrient applications; and use reports to revise the plan. We'll have 25 computers with an incomplete sample plan so participants can jump into the program and create the rest of the plan. Discover the easier paths to planning in SnapPlus so you can help the next farm that needs it. All are welcome to attend. If we don't have enough computers, we can share, or just come and watch the presentation.

How Did We Get Here? This workshop will provide a light hearted but historically accurate overview of the evolution of county land conservation programs from the perspective of two "seasoned" County Conservationists, with a focus on nonpoint pollution. Why did Wisconsin abolish Soil & Water Conservation Districts in 1982? Why does that make us unique nationally? What have been key program developments since? Who were the key players? What have been some of our biggest challenges, accomplishments and setbacks? As we plan to address our current and future program challenges, attendees will gain a better appreciation of our rich history, and the lessons learned along the way. *Presenters: Perry Lindquist, Waukesha Co., and Dan Masterpole, Chippewa Co.*

Who's Responsible for Stormwater BMP Maintenance and Inspection? When does the sediment in that detention basin need to be removed? Who makes that call? Who pays for the work? Who ensures it is right? Are they even working like designed? Many counties and local governments are asking these same questions. Washington County will share the results from a round of stormwater BMP inspections and their plan on sites that are in need of maintenance as well as a look at their tracking database and inspection forms. Waukesha County requires the BMP owner to properly inspect, report and document maintenance; they will share their ordinance language and experience and how this ties into their MS4 program. DNR staff will provide an overview of the permit requirements related to storm water practice maintenance and summarize the different approaches that municipalities are using to deal with storm water practice maintenance. *Presenters: Paul Sebo, Washington County; Alan Barrows, Waukesha County; Peter Wood or Amy Minser, DNR.*

Communication Breakdown. A common complaint and challenge in the workforce today is communication. It is never right; not enough, too much, wrong form. This interactive presentation will demonstrate how communication often goes wrong, but provides the answers for how to be effective regardless of your communication preferences. *Presenter: Brad Gingras, Superior Strategies.*

Thursday, March 5, 3:00-4:15pm

Technical Roundtable #4: Manure Composting Basics: How to engage with the landowner and plan a successful manure composting project. This session will teach the basics on planning a composting project. *Presenter: Travis Buckley, DATCP.*

Soils Investigations and Testing for Manure Storage:

Conducting the proper soils investigations, soil testing requirements, and developing the geologic profile for the current Manure Storage Standard. *Presenter: Amy Moore, P.E., NRCS.*

1 Engineering Professional Development Hour.

Celebrating Women in Conservation. The last session between you and Happy Hour, so why not celebrate? Join us for an open discussion to celebrate women working in conservation, the great strides that have been made, and what the future holds. *The session will be led by Angela Biggs, who will share her journey, which began in northeast Iowa and has taken her cross-country, including work in Hawaii and the Pacific Islands, to becoming Wisconsin's NRCS State Conservationist.* This interactive session will include small group work where we will discuss the challenges that women in conservation face, the opportunities available to women in the field, and the changes we'd like to see for future generations of female leaders. The focus will be on building relationships, understanding the value women bring to the table, and learning from each other to strengthen our collective efforts to improve Wisconsin's land and water! Whether you're a fresh graduate or a seasoned veteran, there will be something for everyone. While the focus of this session is women in conservation, all are welcome to join in the conversation.

Restoring Hydrology to Solve Problems - What's Needed and How do We Get There? Join colleagues from Wisconsin Wetlands Association, UW-Extension, and WI Land+Water for an interactive session on how degraded hydrologic conditions contribute to today's water management challenges and opportunities to integrate hydrologic assessment and wetland, stream, and floodplain restoration to reduce flooding and improve water quality. A facilitated discussion will follow the short presentation to explore what data, training, and technical support counties would need to better integrate hydrologic assessment and restoration approaches in their work. Results from this session will help inform collaborative discussions with all three organizations, and other state agencies, on hydrologic restoration training and technical support needs and opportunities to promote hydrologic restoration in Wisconsin. **1 Engineering Professional Development Hour.**

Chronic Wasting Disease (CWD), a fatal and contagious neurodegenerative disease of deer, was first detected in the State of Wisconsin in 2002. Despite efforts by the Departments of Natural Resources (DNR) and Agriculture, Trade and Consumer Protection (DATCP), the disease is firmly entrenched in both free-ranging and commercial captive deer facilities across a broad swath of the state. We'll explore disease background, observed patterns of CWD in both free-ranging and captive herds, what science tells us about risks, and opportunities for disease mitigation and management. The session will be led by *Bryan Richards, Emerging Disease Coordinator at the U.S. Geological Survey's National Wildlife Health Center in Madison, WI*, and include updates from LCD staff.

Generational Workforce Solutions. There are five different generations represented in today's workforce, each with a core set of values and characteristics that differ from each other. This session will provide tips and strategies to help understand, motivate, and succeed with each generation and leave the participants with thought-provoking ideas that may change how you not only view your co-workers, but also yourself. *Presenter: Brad Gingras, Superior Strategies.*

Friday, March 6, 8:00-9:00am

Brown County's Northern Pike Habitat Restoration Project.

Chuck Larscheid, Brown Co. LWCD, will present on the need for assisting northern pike reproduction in tributaries to the Bay of Green Bay (Lake Michigan), examples of environmental problems limiting pike reproduction, habitat improvement projects Brown County has designed and completed, and pictures of adult northern pike, young of the year, and staff conducting monitoring projects.

Southwest Wisconsin Groundwater and Geology Study Update.

Hear updates from the researchers covering source testing, well construction analysis, and bedrock mapping. Counties will share their perspectives on the study and where to go from here. *Presenters: Lynda Schweikert, Grant County; Katie Abbott, Iowa County; Terry Loeffelholz, Lafayette County; Joel Stokdyk, Biologist U.S. Geological Survey, Upper Midwest Water Science Center Laboratory for Infectious Disease and the Environment; Maureen Muldoon, Hydrogeologist, Wisconsin Geological and Natural History Survey; and Ken Bradbury, Director and State Geologist, Wisconsin Geological and Natural History Survey.*

DNR Rain Garden Technical Standard. Rain gardens are used to manage stormwater on small residential and commercial sites, including shoreland properties, to meet impervious surface limits in NR 115. This session will review the DNR Technical Standard 1009, which was published by the Department of Natural Resources in September 2018 and developed through the Wisconsin Standards Oversight Council (SOC) process. The standard addresses the planning, design, installation, and maintenance of rain gardens. The presenter is *Perry Lindquist, Land Resources Manager for the Waukesha County Department of Parks and Land Use*, who served as the team leader for the development of the standard, and oversees the stormwater program for Waukesha County. **1 Engineering Professional Development Hour.**

If you build it they will come: County Presentations.

Marie Raboin, Dane Co. LCD, shares their project objective that by promoting the idea of a farming community and supporting livestock farms to implement the practice of grazing fall-planted cover crops will lead to the implementation of this practice across the Southern Wisconsin landscape. Next Brent Peterson, Brown Co. LWCD, builds confidence in the Lower Fox Demonstration Farm Network with a variety of strategies as different as producers are. Outreach strategies, such as mass text-messaging, a field sign campaign, and field days designed for targeted, small group interactions, they focus their efforts on engaging middle adopters.

Working Cooperatively with Tribal Partners to further Conservation Efforts in your County. A look at some of the successful conservation efforts being carried out by the Oneida Tribe of Indians as well as areas where partnerships between the Tribe and the County LCD have helped to further the conservation efforts. *Presenters: Jon Habeck, Oneida Nation, and Greg Baneck, Outagamie Co. LCD*

3

Friday, March 6, 9:15-10:15am

Green Bay - Before the Packers and After. Learn about Green Bay's long history ... Native American, French, British and United States, natural resources, transportation, prohibition, manufacturing, cheese, and football. Always with some fun! *Presenter: Mary Jane Herber, Brown County Historical Society.*

Hydrogeology of Wisconsin: Introduction to Hydrogeology and How the Geology of Wisconsin's Aquifers Affects Groundwater Flow and Aquifer Vulnerability. *Dr. Maureen Muldoon, Research Hydrogeologist at Wisconsin Geological and Natural History Survey* will provide a brief introduction to the basics of hydrogeology (aquifer properties, principles of groundwater flow) before exploring how geologic variability affects groundwater flow patterns and the varying vulnerability of Wisconsin's aquifers. **1 Engineering Professional Development Hour.**

Building a farmer-led market driver for agricultural water stewardship. Meeting the pressing need for better on-farm water stewardship is especially challenging right now, as farmers face an extraordinarily difficult financial landscape for agricultural products. This session presents the Clear Water Farms program, which certifies individual farm operations on the Alliance for Water Stewardship International Standard and aims to create a farmer-led, and empirically credible, credential for water stewardship achievements. We will discuss the opportunities and challenges of using this certification to create market driver for agricultural water stewardship. *Presenter: Dr. Michael Tiboris, Clear Water Farms Director, River Alliance of Wisconsin.*

Aquatic Invasive Species: Round-em up ... Barriers improve aquatic herbicide control. *Chuck Druckrey, Marinette Co. LWCD* shares his work on a DNR-funded project that tests the efficacy of enclosures in the herbicide control of Eurasian Water Milfoil (EWM). He designed a curtain that encircles the EWM bed and the herbicide is applied inside. He'll share his first year's results, data, and impressions. Next, **Sick of wet soggy data sheets? We are!!! Iron County Joins the Geek Squad!!** *Zach Wilson, Iron County LWCD* will share their new integrated open-source data collecting tool. He'll discuss how the department has been using KoBoToolbox since 2017 to collect and manage field data on a variety of applications, including invasive species monitoring and management, shoreline restoration monitoring, wildlife habitat research, Coarse Woody Habitat, shoreline substrate mapping, and more. The presentation will examine the pros and cons of using KoBoToolbox.

Long term observed and historical precipitation trends in northeast Wisconsin. This session will cover the climatology and precipitation trends observed in northeast Wisconsin, utilizing observed data from the past century. This climatology will then be compared to the observed precipitation trends from the past decade for multiple sites in the region. A brief outlook for the upcoming year will also be included. *Presenter: Timm Uhlmann, National Oceanic and Atmospheric Administration.*